

### ABSTRACT OF THE DISCLOSURE

The present invention provides an isolated polynucleotide sequence and amino acid sequence for a bovine fertility associated antigen (FAA), methods of producing recombinant bovine FAA protein; methods of increasing the stability of the plasma membrane, acrosome, and/or other portions of a sperm cell by mixing with FAA and/or recombinant FAA protein(s); and increasing fertility of bulls by mixing sperm cells with FAA and/or recombinant FAA protein(s).

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